

Venue

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TECHNISCHE UNIVERSITÄT
BERGAKADEMIE FREIBERG
The University of Resources. Since 1765.



Autumn Retreat in Holzgau

from 28th to 30th September 2021



Institute of Mechanics
and Fluid Dynamics

Applied Mechanics
Solid Mechanics

Prof. Björn Kiefer, Ph.D.
Prof. Dr. rer. nat. habil. Meinhard Kuna

Tuesday, 28th September 2021

08:30 **Arrival / Registration**

09:10 **Opening** (Prof. Kiefer)
Session 1 (chair: Prof. B. Kiefer)

09:15 Dipl.-Ing. Nils Lange:
Recent developments of MonolithFE²
for Abaqus

10:15 **Coffee Break**

10:30 M. Sc. Vincent von Oertzen:
Coupling of phase-field and crystal-plasticity
approaches within TRIP-steel modeling

11:30 Dr.-Ing. Stefan Prüger:
Implementation of Crystal Plasticity Models –
Insights and Open Questions

12:30 **Lunch**

time for
individual discussions and
leisure activities
(Hiking, Climbing, Bicycling...)

Session 2 (chair: Dr. M. Abendroth)

16:15 **Coffee Break**

16:30 M. Sc. Kai Simbruner:
Embrittlement of spent fuel claddings

17:30 M. Sc. Stephan Gesell:
Experimental and numerical investigations
on crack behaviour under TMF loading

18:30 M. Sc. Rahul Ganesh:
Determination of TMF crack growth in
turbocharger hot parts
(Application of ProCrackPlast)

19:30 **Dinner**

Wednesday, 29th September 2021

07:30 **Breakfast**

Session 3 (chair: Dr. G. Hütter)

08:30 M. Sc. Shahin Takht Firouzeh:
Application of Brazilian Disc test variations
on filter materials at room and high-temperatures

09:30 M. Sc. Jeffy Sabu Abraham:
Parameter identification scheme for deformation
and damage behaviour in superalloys

10:30 **Coffee Break**

10:45 M. Sc. Dinh Rinh Pham:
Validierungsprojekt – Parameteridentifikations-
strategie

11:45 Dr.-Ing. Omar El'Khatib:
Magnetostrictive-ferroelectric interactions
on the domain level: A fully-integrated
experimental and numerical study
of multiferroic composites

12:45 **Lunch**

time for
individual discussions and
leisure activities
(Hiking, Climbing, Bicycling...)

16:45 **Coffee Break**

Session 4 (chair: Dr. St. Roth)

17:00 Dr.-Ing. Andreas Seupel:
First steps towards the simulation
of in situ layer formation
in reactive multiphase/multicomponent systems

18:00 Dipl.-Ing. Alexander Malik:
Implementation of the hybrid approach
employing neural networks

19:00 **Dinner**

Thursday, 30th September 2021

07:30 **Breakfast**

Session 5 (chair: Dr. St. Roth)

08:30 Dipl.-Ing. Richard Schirmer:
Creep-damage simulations and a new
experimental setup to Capture Creep,
Fatigue and Static Loading for
Small Specimens

09:30 M. Eng. Marcel Selent:
Barrierefreie Webgestaltung

10:30 **Coffee Break**

Session 6

10:45 Prof. Björn Kiefer, Ph.D.:
Wissenschaftliches Arbeiten
in der Arbeitsgruppe

12:45 **Lunch**

13:45 **Closing**

14:00 **Departure**